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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ZHU, BO HUI ALVIN

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,729	Applicant(s) BIANCO ET AL.	
	Examiner BO HUI A. ZHU	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment submitted with RCE filed on April 14, 2009 has been entered.

Claims 1 – 8 are pending.

Claims 1 – 8 are rejected.

The objection to claim 1 has been withdrawn in view of the amendment to the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill (Application publication No. WO 01/67803A1) in view of Umayabashi et al. (US Patent No. 6,747,990).

Regarding claim 1, Hill discloses a method of allocating switch requests within a packet switch (See page 4, lines 12-14, allocating switch requests), the method comprising the steps of: (a) generating switch request data for each input port indicative of the output ports to which data packets are to be transmitted (See page 4, line 15, generating switch request); (b) processing the switch request data for each input port to

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generate request data for each input port-output port pairing (See page 4, lines 16-17, processing switch request); and (c) generating an allocation plan by sorting the request data R relating to each of the input/output pairs in terms of their queue length (See page 4, lines 17-22 organization request), and (d) for each input/output pair, considered in the sorted order, allocating as many of the requests in the queue as can be accommodated in the remaining time slots (See page 4, lines 17-22, allocating requests).

Hill however does not disclose sorting the request data in terms of their queue length in descending order from largest to smallest.

Umayabashi et al. teaches sorting request data in terms of their queue length in descending order from largest to smallest (column 10, line 63 – column 11, line 8; column 11, lines 9 - 31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hill to include the feature of sorting the request data in terms of their queue length in descending order from largest to smallest as shown in Umayabashi et al. in order to make use of bandwidth more efficient.

Regarding claim 2, Hill further discloses a method of packet switching wherein the packets are switched on the basis of the allocated routing, and to a packet switch in which the input port-output port routing is allocated in accordance with claim 1, and packets are switched from an input port to a specified output port in accordance with the allocated routing (See page 5, lines 3-8).

Regarding claim 3, Hill further discloses a method according to claim 1, in which unallocated switch requests are reserved for use in the next phase of switch request allocation, or abandoned if they have exceeded a predetermined expiry time (See page 5, lines 19-20 and lines 6-7).

Regarding claim 4, Hill further discloses a method according to claim 1, comprising a preliminary stage in which the number of requests for each input or output port is reduced by a factor such that the number of requests relating to that port is no greater than the number of available time slots (See page 4, lines 24-29).

Regarding claim 5, Hill further discloses a method according to claim 1, comprising a preliminary stage in which the number of requests in respect of each input/output pair are reduced by a single common factor such that the number of requests relating to all ports is no greater than the number of available time slots (See page 4, lines 24-29).

Regarding claim 6, Hill further discloses a method of packet switching wherein the input port-output port routing is allocated according to the method of claim 1 and the packets are switched on the basis of the allocated routing (See page 4, lines 21-23 and line 29).

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Regarding claim 7, Hill further discloses a packet switch in which the input port-output port routing is allocated in accordance with the method of claim 1 (See page 4, lines 21- 23 and line 29).

Regarding claim 8, Hill further discloses a packet switch according to claim 7, wherein packets are switched from an input port to a specified output port in accordance with the allocated routing (See page 4, lines 30-32 and page 5 lines 3-7).

Response to Arguments

4. Applicant's arguments have been fully considered but they are moot in view of the new ground of rejections necessitated by the amendment. Specifically, Applicant argues that Hill does not teach the request data are sorted in descending order from largest to smallest as recited in amended claim 1. Examiner has introduced a new reference i.e. Umayabashi to address this issue.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BO HUI A. ZHU whose telephone number is (571)-270-1086. The examiner can normally be reached on Mon-Thu 10am-6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. A. Z./
Examiner, Art Unit 2419

/Jayanti K. Patel/
Supervisory Patent Examiner, Art Unit 2419